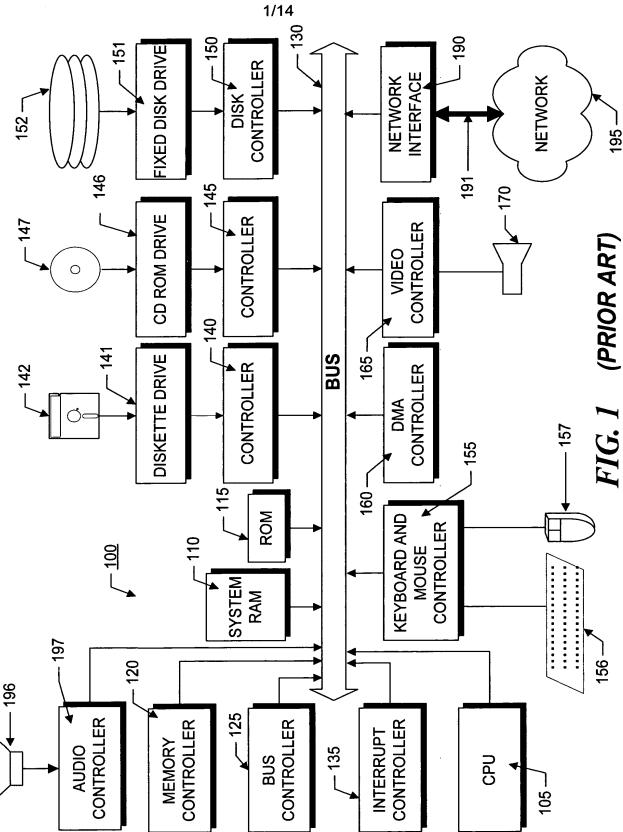
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Title: METHOD AND APPARATUS FOR EFFICIENT MANAGEMENT OF XML ...

Inventor: Raymond E. Ozzie, Kenneth G. Moore, Ransom L. Richardson and Edward J. Fischer

Filing Date: June 6, 2000 Serial No: 09/588,195 Docket No: G0008/7003

Customer No. 021127

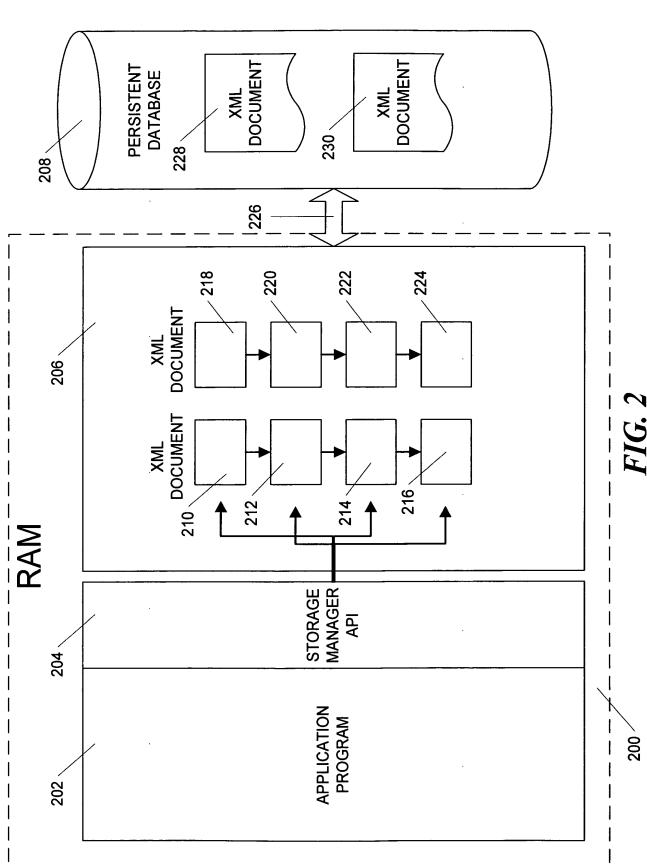




Inventor: Raymond E. Ozzie, Kenneth G. Moore, Ransom L. Richardson and Edward J. Fischer

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Customer No. 021127



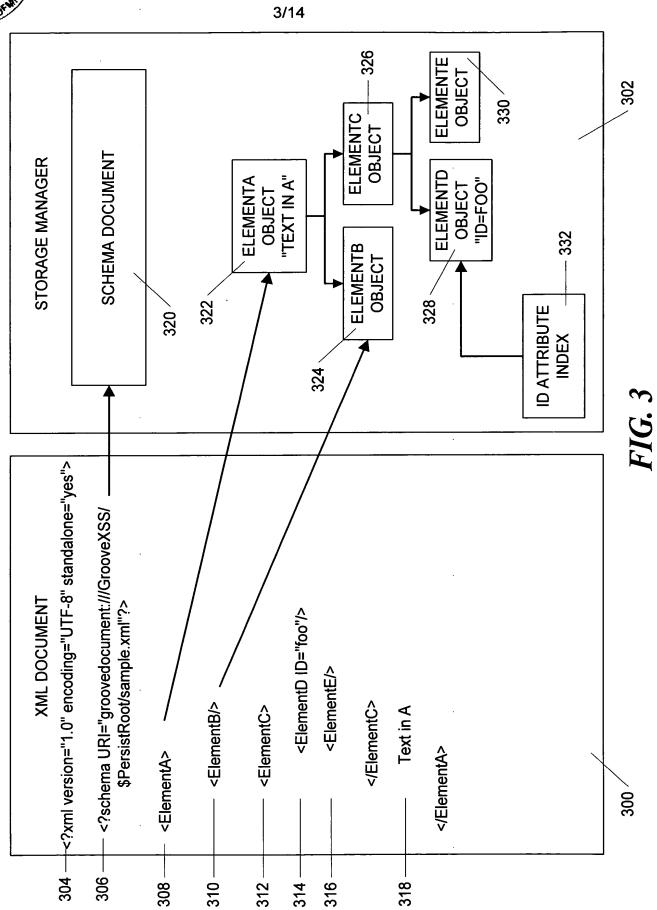
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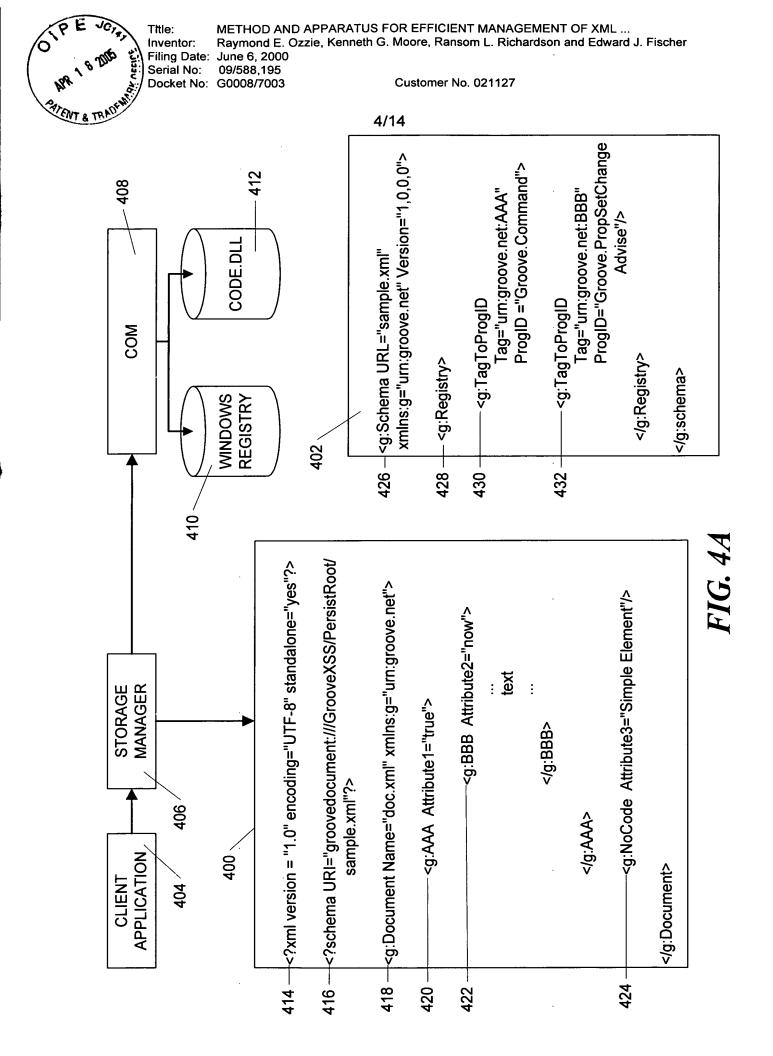
Title: METHOD AND APPARATUS FOR EFFICIENT MANAGEMENT OF XML ...

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Customer No. 021127





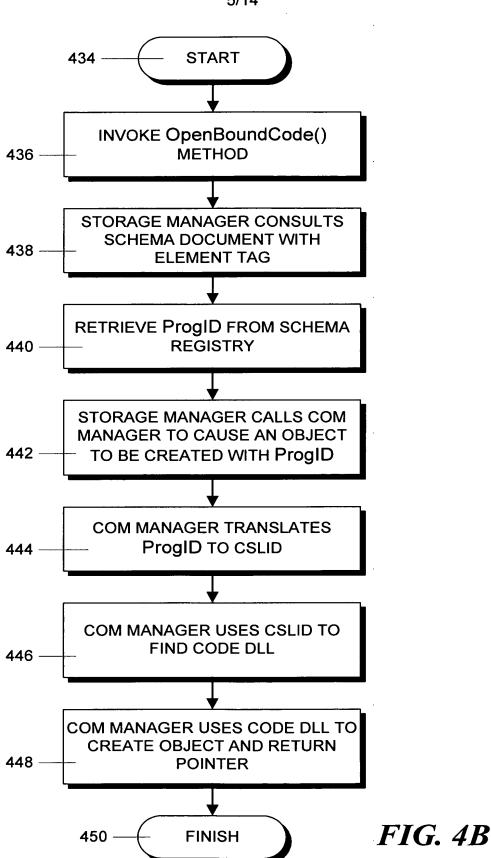
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. Title: METHOD AND APPARATUS FOR EFFICIENT MANAGEMENT OF XML ...

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Filing Date: June 6, 2000 Serial No: 09/588,195 Docket No: G0008/7003

Customer No. 021127

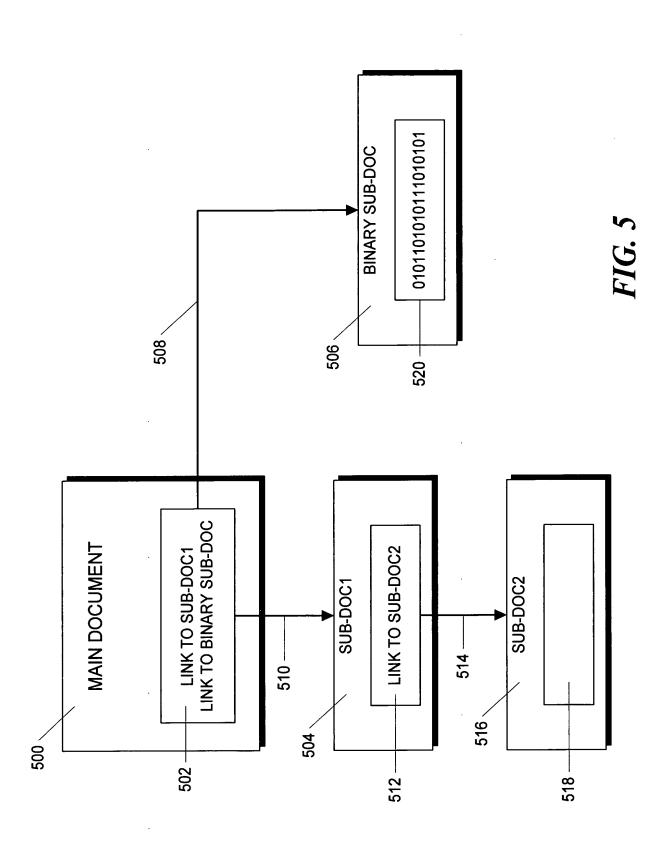




Inventor: Raymond E. Ozzie, Kenneth G. Moore, Ransom L. Richardson and Edward J. Fischer

Inventor: Raymond E. C Filing Date: June 6, 2000 Serial No: 09/588,195 Docket No: G0008/7003

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Title: METHOD AND APPARATUS FOR EFFICIENT MANAGEMENT OF XML ...

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Filing Date: June 6, 2000 Serial No: 09/588,195 Docket No: G0008/7003

Customer No. 021127

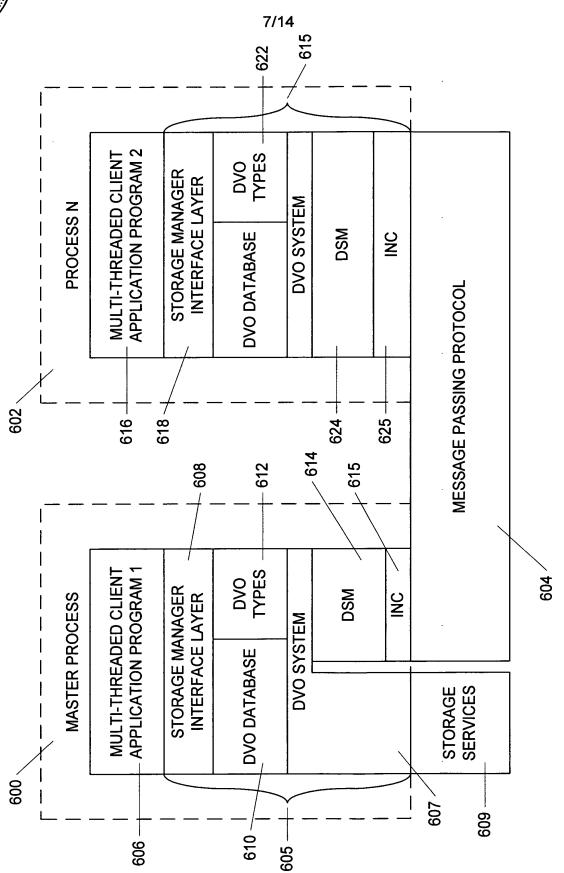


FIG. 6

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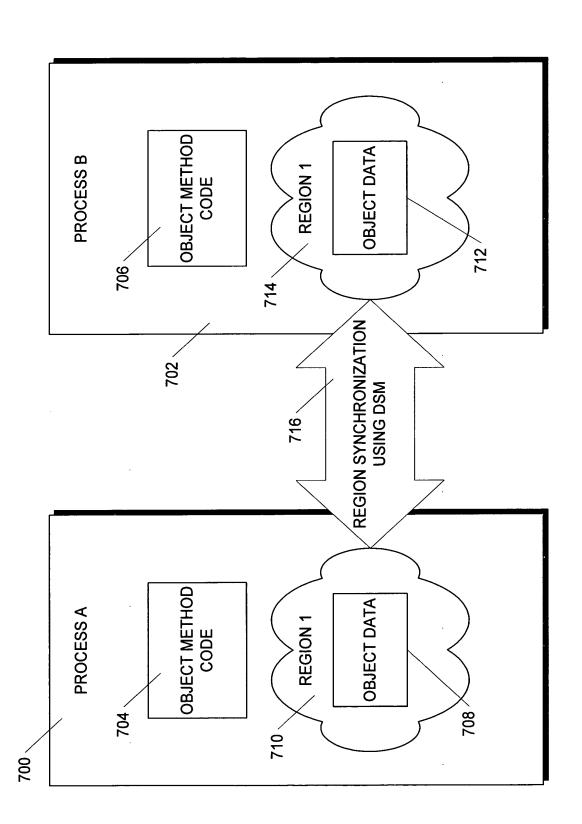


FIG. 7



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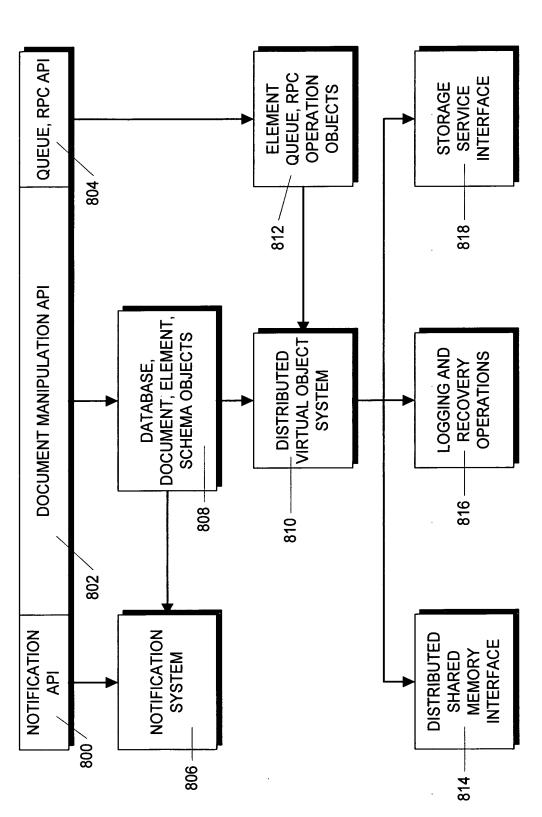


FIG. 8



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Customer No. 021127

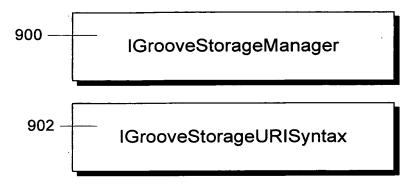


FIG. 9

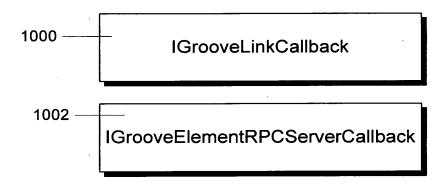


FIG. 10

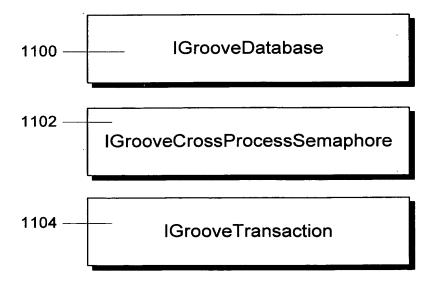
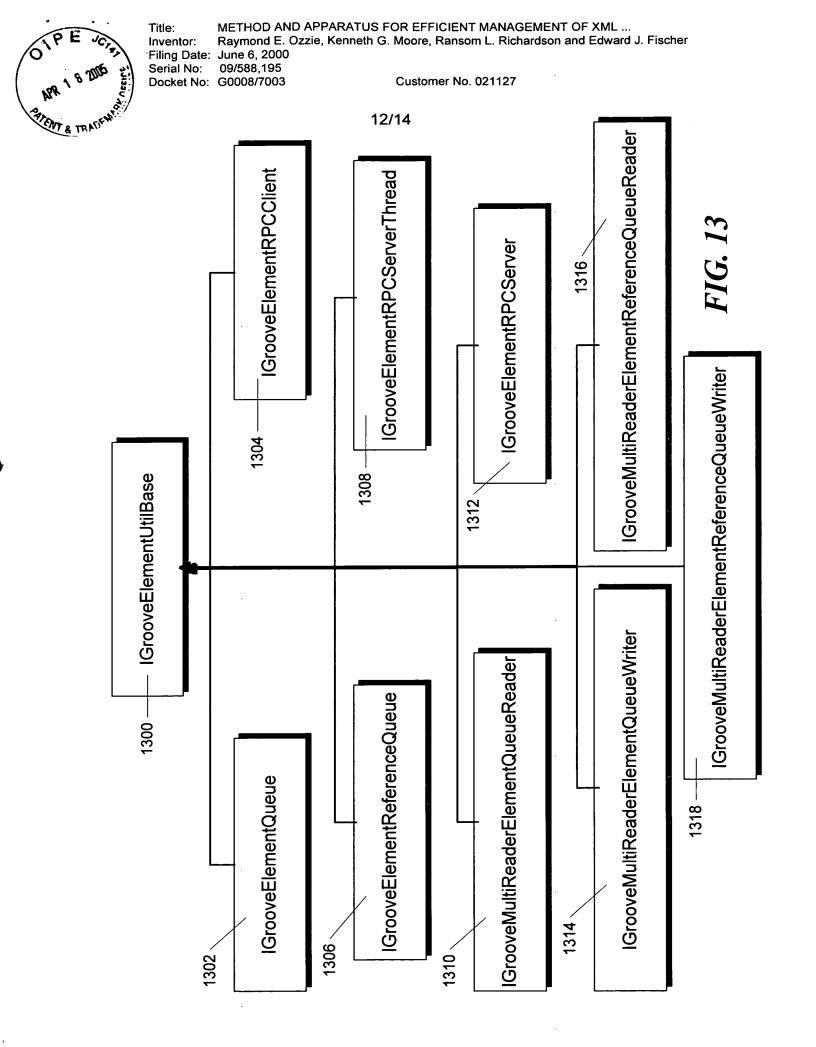


FIG. 11

METHOD AND APPARATUS FOR EFFICIENT MANAGEMENT OF XML Title: Raymond E. Ozzie, Kenneth G. Moore, Ransom L. Richardson and Edward J. Fischer Inventor: Filing Date: June 6, 2000 Serial No: 09/588,195 Docket No: G0008/7003 Customer No. 021127 11/14 1200 -**IGrooveDocument** 1204 1202 **IGrooveXMLDocument IGrooveBinaryDocument** - 1206 **IGrooveLocator** 1208 **IGrooveTransform** 1210 **IGrooveElement** IGrooveReadOnlyElement 1212 -**IGrooveElementReference** 1214 -IGrooveElementUtilBase 1216 -FIG. 12 **IGrooveBoundCode** 1218





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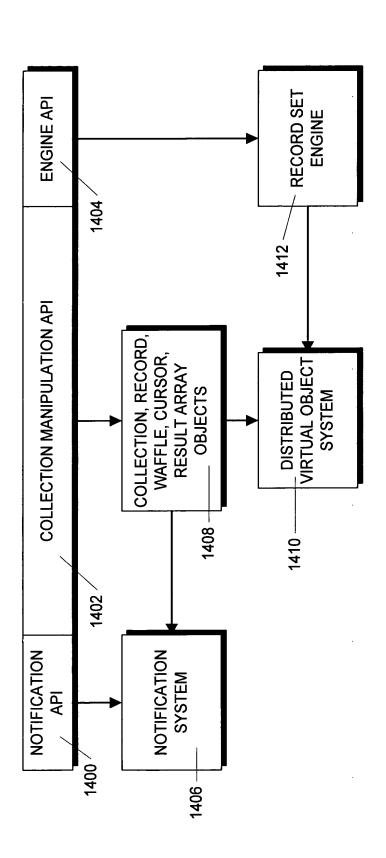


FIG. 14



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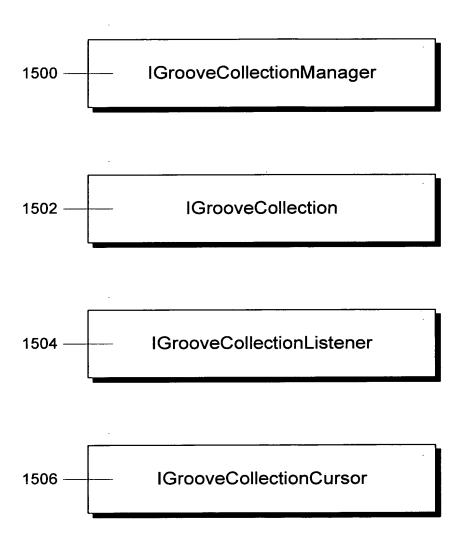


FIG. 15